

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

Procedurally, the examiner has failed to establish a *prima facie* case of obviousness as to the existence of a suggestion or motivation to modify Cupples, or as to a reasonable expectation of success upon doing so. (1)

As discussed during the interview, Cupples at col. 3, lines 32-47 discloses the use of a boron trifluoride catalyst with a second compound (referred to as a co-catalyst or promoter) selected from a long list of compounds including alcohols and carboxylic acids. Thus, Cupples discloses the use of boron trifluoride with an alcohol or the use of boron trifluoride with a carboxylic acid, but not the use of boron trifluoride with an alcohol and a carboxylic acid. Assuming for the sake of argument that a suggestion or modification exists within Cupples for the use of a combination of compounds (i.e., promoters) selected from those listed, hundreds and possibly thousands of such combinations are possible. In response to the last office action, Applicants amended the claims to recite that the catalyst complex "consist essentially of boron trifluoride and an alcohol promoter" and adding a modifier "consisting essentially of carboxylic acid." The Examiner has provided no suggestion or motivation why one skilled in the art would be motivated to select the specific combination of compounds "consisting essentially of" as recited in Applicants' claims.

Furthermore, the Examiner has provided no basis for a reasonable expectation of success upon doing so. As discovered by Applicants and recited in the claims, such a combination of an alcohol with a carboxylic acid increases the yield of trimer and tetramer in the polyalphaolefin product. Such improved results are shown by Examples 1-3 and Table 1 on pages 5 & 6 of the specification. Assuming for the sake of argument that a reasonable expectation of success exists for the combination of an alcohol with a carboxylic acid, such expectation of success cannot fairly be said to include the improved performance discovered by Applicants, and such surprising

results provide strong evidence weighing against the obviousness of such a combination. For the forgoing reasons, Applicants respectfully submit that claims 10-18 are not obvious in view of art of record.

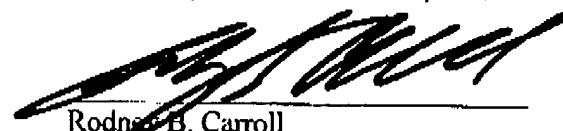
The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 50-1515, Conley, Rose & Tayon.

Applicants respectfully submit that the present application is in condition for allowance. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

Respectfully submitted,
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